

What is Claimed:

1. A method for calculating a measure expression over a selected range of attributes, the measure expression including relationship between a first measure and a second measure, the first measure corresponding to a first data type and the second measure corresponding to a second data type, the relationship defined by an arithmetic operation, the method comprising:

retrieving a first cache corresponding to the first data type, the first cache including data for the first measure over the selected range of attributes;

generating a first index from the first cache, the first index including data for the first measure over the selected range of attributes common to the first data type and the second data type;

retrieving a second cache corresponding to the second data type, the second cache including data for the second measure over the selected range of attributes;

generating a second index from the second cache, the second index including data for the second measure over the selected range of attributes common to the first data type and the second data type;

performing the arithmetic operation on the data for the first measure from the first index and the data for the second measure from the second index to achieve resulting data; and

aggregating the resulting data over the selected range of attributes common to the first data type and the second data type.

2. The method of claim 1, wherein retrieving the first cache comprises retrieving the first cache through a single access to a first data table.

3. The method of claim 1, wherein retrieving the second cache comprises retrieving the second cache through a single access to a second data table.

4. The method of claim 1, wherein generating the first index comprises generating the first index including data for the first measure aggregated according to attributes specific to the first data type.

5. The method of claim 1, wherein generating the second index comprises generating the second index including data for the second measure aggregated according to attributes specific to the second data type.

6. The method of claim 1, further comprising storing the first cache and the second cache.

7. The method of claim 1, further comprising receiving a request to calculate the measure expression over the selected range of attributes.

8. A system for calculating a measure expression over a selected range of attributes, the measure expression including relationship between a first measure and a second measure, the first measure corresponding to a first data type and the second measure corresponding to a second data type, the relationship defined by an arithmetic operation, the system comprising:

a database for storing a first data table including data for the first data type and a second data table including data for the second data type;

a processor for performing the following steps:

retrieving from the first data table a first cache corresponding to the first data type, the first cache including data for the first measure over the selected range of attributes;

generating a first index from the first cache, the first index including data for the first measure over the selected range of attributes common to the first data type and the second data type;

retrieving from the second data table a second cache corresponding to the second data type, the second cache including data for the second measure over the selected range of attributes;

generating a second index from the second cache, the second index including data for the second measure over the selected range of attributes common to the first data type and the second data type;

performing the arithmetic operation on the data for the first measure from the first index and the data for the second measure from the second index to achieve resulting data; and

aggregating the resulting data over the selected range of attributes common to the first data type and the second data type.

9. The method of claim 8, wherein the first cache comprises data retrieved through a single access to the first data table.

10. The method of claim 8, wherein the second cache comprises data retrieved through a single access to the second data table.

11. The system of claim 8, wherein the first index comprises data for the first measure aggregated according to attributes specific to the first data type.

12. The system of claim 8, wherein the second index comprises data for the second measure aggregated according to attributes specific to the second data type.

13. The system of claim 8, further comprising a memory for storing the first cache and the second cache.

14. A computer readable medium for calculating a measure expression over a selected range of attributes, the measure expression including relationship between a first measure and a second measure, the first measure corresponding to a first data type and the second measure corresponding to a second data type, the relationship defined by an arithmetic operation, the computer readable medium having stored thereon computer executable instructions for performing the following steps:

retrieving a first cache corresponding to the first data type, the first cache including data for the first measure over the selected range of attributes;

generating a first index from the first cache, the first index including data for the first measure over the selected range of attributes common to the first data type and the second data type;

retrieving a second cache corresponding to the second data type, the second cache including data for the second measure over the selected range of attributes;

generating a second index from the second cache, the second index including data for the second measure over the selected range of attributes common to the first data type and the second data type;

performing the arithmetic operation on the data for the first measure from the first index and the data for the second measure from the second index to achieve resulting data; and

aggregating the resulting data over the selected range of attributes common to the first data type and the second data type.

15. The computer readable medium of claim 14, wherein the computer executable instructions for retrieving the first cache comprise computer executable instructions for retrieving the first cache through a single access to a first data table.

16. The computer readable medium of claim 14, wherein the computer executable instructions for retrieving the second cache comprise computer executable instructions for retrieving the second cache through a single access to a second data table.

17. The computer readable medium of claim 14, wherein the computer executable instructions for generating the first index comprise computer executable instructions for generating the first index including data for the first measure aggregated according to attributes specific to the first data type.

18. The computer readable medium of claim 14, wherein the computer executable instructions for generating the second index comprise computer executable instructions for generating the second index including data for the second measure aggregated according to attributes specific to the second data type.

19. The computer readable medium of claim 14, further comprising computer executable instructions for storing the first cache and the second cache.